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=> s cyclosporine

L1 6 CYCLOSPORINE

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=> s 11
L2 9116 L1
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=> e aerosol AEROSMOOTHENERS/BI E1 1 AEROSOIS/BI E2 4 37003 --> AEROSOL/BI E3 AEROSOL18/BI E4 1 AEROSOL22/BI 1 E5 1 AEROSOLAND/BI E6 AEROSOLATION/BI E7 2 AEROSOLBEHAELTERN/BI E8 1 AEROSOLD/BI E 9 1 AEROSOLDEPOSITION/BI E10 1 AEROSOLDETN/BI E11 1 AEROSOLDISPENSING/BI E12

=> s e3

L3 37003 AEROSOL/BI

 $\Rightarrow$  s 12 and 13

L4 21 L2 AND L3

=> s tacolimus

L5 0 TACOLIMUS

=> s tacrolimus

L6 654 TACROLIMUS

=> s 14 and 16

L7 1 L4 AND L6

=> d 17 1

L7 ANSWER 1 OF 1 Full-text? CA COPYRIGHT 1999 ACS

AN 126:135595 CA

TI Aerosol drug formulations containing vegetable oils

```
Adjei, Akwete L.; Gupta, Pramod K.; Lee, Dennis Y.
IN
    Abbott Laboratories, USA
PA
    PCT Int. Appl., 23 pp.
SO
    CODEN: PIXXD2
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LA
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                          19970603 US 1995-485222 19950607
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                     Α
PRAI US 1995-485222
                     19950607
=> d 14 1-21
    ANSWER 1 OF 21 Full-text?
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L4
AN
    131:189741 CA
    Fat emulsions for inhalational administration
ΤI
    Sonoke, Satoru; Seki, Junzo
IN
PΑ
    Nippon Shinyaku Co., Ltd., Japan
so
    PCT Int. Appl., 36 pp.
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    Japanese
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    WO 9944594 A1 19990<u>91</u>0 WO 1999-JP1004
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PRAI JP 1998-53159
                     19980305
    ANSWER 2 OF 21 Full-text?
                             CA COPYRIGHT 1999 ACS
L4
    131:161656 CA
ΑN
    Liquid crystal forms of cyclosporin
TΙ
    Bennett, David B.; Cabot, Kirsten M.; Foster, Linda C.;
IN
    Lechuga-Ballesteros, David; Patton, John S.; Tan, Trixie K.
    Inhale Therapeutic Systems, Inc., USA
PA
    PCT Int. Appl., 62 pp.
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PRAI US 1998-PV75422 19980220
    ANSWER 3 OF 21 Full-text? CA COPYRIGHT 1999 ACS
L4
AN
    130:272007 CA
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Buccal spray or capsule compositions containing polar and non-polar
ΤI
     solvents for transmucosal administration of drugs
     Dugger, Harry A., III
ΙN
     Flemington Pharmaceutical Corporation, USA
PA
SO
     PCT Int. Appl., 38 pp.
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     AU 9748946
                        A1 19990423
PRAI WO 1997-US17899
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     ANSWER 4 OF 21
ΑN
     129:297756 CA
ΤI
     Cyclosporine aerosol in lung transplantation
     Burckart, Gilbert J.; Keenan, Robert J.; Iacono, Aldo T.; Griffith,
ΑU
     Bartley P.
     University of Pittsburgh Medical Center, Pittsburgh, PA, USA
CS
     Local Immunosuppr. Organ Transplants (1996), 131-139. Editor(s): Gruber,
SO
     Scott A. Publisher: Landes, Austin, Tex.
     CODEN: 660CAO
DΤ
     Conference; General Review
LΑ
     English
                      Full-text?
                                 CA COPYRIGHT 1999 ACS
     ANSWER 5 OF 21
L4
     128:261794 CA
ΑN
     Pulmonary pharmacokinetics of cyclosporin A liposomes
TI
     Arppe, J.; Vidgren, M.; Waldrep, J. C.
ΑU
     Dep. Pharmaceutics, Univ. Kuopio, Kuopio, Finland
CS
     Int. J. Pharm. (1998), 161(2), 205-214
SO
     CODEN: IJPHDE; ISSN: 0378-5173
     Elsevier Science B.V.
PΒ
DT
     Journal
LА
     English
                      Full-text?
                                 CA COPYRIGHT 1999 ACS
     ANSWER 6 OF 21
L4
ΑN
     128:212889 CA
     Aerosol cyclosporine prevents acute allograft rejection in
TΙ
     experimental lung transplantation
     Mitruka, Surindra N.; Pham, Si M.; Zeevi, Adriana; Li, Sen; Cai, Jane;
ΑU
     Burckart, Gilbert J.; Yousem, Samuel A.; Keenan, Robert J.; Griffith,
     Bartley P.
     Departments of Cardiothoracic Surgery, University of Pittsburgh School of
CS
     Medicine, Pittsburgh, PA, 15261, USA
     J. Thorac. Cardiovasc. Surg. (1998), 115(1), 28-37
SO
     CODEN: JTCSAQ; ISSN: 0022-5223
PB
     Mosby-Year Book, Inc.
     Journal
DT
LΑ
     English
                      Full-text?
     ANSWER 7 OF 21
                                 CA COPYRIGHT 1999 ACS
L4
AN
     128:196599 CA
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Experimental pulmonary delivery of cyclosporin A by liposome
     aerosol
     Waldrep, J. C.; Arppe, J.; Jansa, K. A.; Vidgren, M.
ΑU
     One Baylor Plaza, Department of Molecular Physiology and Biophysics,
CS
     Baylor College of Medicine, Houston, TX, USA
     Int. J. Pharm. (1998), 160(2), 239-250
SO
     CODEN: IJPHDE; ISSN: 0378-5173
     Elsevier Science B.V.
PB
     Journal
DΤ
     English
LА
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L4
     128:188167 CA
ΑN
ΤI
     Cyclosporine
     Burckart, Gilbert J.; Keenan, Robert; Griffith, Bartley P.; Iacono, Aldo
ΑU
     University of Pittsburgh School of Pharmacy, Pittsburgh, PA, USA
CS
     Lung Biol. Health Dis. (1997), 107(Inhalation Delivery of Therapeutic
SO
     Peptides and Proteins), 281-299
     CODEN: LBHDD7; ISSN: 0362-3181
                                                                  5562,18
     Marcel Dekker, Inc.
PB
\mathtt{DT}
     Journal; General Review
     English
LΑ
                     Full-text?
     ANSWER 9 OF 21
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L4
     128:132441 CA
ΑN
     Medicinal cyclosporin A aerosol solutions
ΤI
IN
     Bell, Alexander
     Rhone-Poulenc Rorer Ltd., UK; Bell, Alexander
PA
SO
     PCT Int. Appl., 21 pp.
     CODEN: PIXXD2
DΤ
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                      19960708
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                      19960802
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                      19970707
     WO 1997-GB1851
                      Full-text? CA COPYRIGHT 1999 ACS
     ANSWER 10 OF 21
L4
ΑN
     128:119664 CA
ΤI
     High dose liposomal aerosol formulations
     Waldrep, J. Clifford; Knight, Vernon; Black, Melanie B.
IN
     Research Development Foundation, USA
PA
SO
     PCT Int. Appl., 44 pp.
     CODEN: PIXXD2
DТ
     Patent
     English
LA
FAN.CNT 2
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WO 1997-US11696 19970702
     WO 9800111
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                                               US 1996-731605
                                                                 19961016
     US 5958378
                              19990928
                        Α
                                              AU 1997-36508
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     AU 9736508
                        A1
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PRAI US 1996-675654
                        19960703
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     WO 1997-US11696
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     ANSWER 11 OF 21
                                   CA
                                      COPYRIGHT 1999 ACS
L4
ΑN
     127:314516 CA
     Cyclosporin A liposome aerosol: lack of acute toxicity in rats
ΤI
     with a high incidence of underlying pneumonitis
     Gilbert, Brian E.; Black, Melanie B.; Waldrep, J. Clifford; Bennick,
AU
     Jerry; Montgomery, Charles; Knight, Vernon
     Dep. Microbiol. Immunol., Baylor Coll. Med., Houston, TX, USA
CS
     Inhalation Toxicol. (1997), 9(8), 717-730
SO
     CODEN: INHTE5; ISSN: 0895-8378
     Taylor & Francis
PB
יית
     Journal
     English
T.A
                       Full-text?
     ANSWER 12 OF 21
                                  CA COPYRIGHT 1999 ACS
L4
     127:229170 CA
AN
     Pulmonary delivery of intratracheally instilled and aerosolized
TΙ
     cyclosporine A to young and adult rats
     Taljanski, Witold; Pierzynowski, Stefan G.; Lundin, Pal D. P.; Westrom,
ΑU
     Bjorn R.; Eirefelt, Stefan; Podlesny, Jerzy; Dahlback, Magnus;
     Siwinska-Golebiowska, Henryka; Karlsson, Borje W.
     Department of Immunology, National Research Institute of Mother and Child
CS
     Warsaw, 01-211, Pol.
     Drug Metab. Dispos. (1997), 25(8), 917-920
SO
     CODEN: DMDSAI; ISSN: 0090-9556
PB
     Williams & Wilkins
DT
     Journal
LΑ
     English
                       Full-text?
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L4
     ANSWER 13 OF 21
     127:140432 CA
ΑN
     High dose cyclosporin A and budesonide-liposome aerosols
ΤI
     Waldrep, J. C.; Arppe, J.; Jansa, K. A.; Knight, V.
ΑU
     Dep. Molecular Physiology Biophysics, Baylor College Medicine, Houston,
CS
     TX, 77030, USA
     Int. J. Pharm. (1997), 152(1), 27-36
SO
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DΤ
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L4
ΑN
     126:135595 CA
ΤI
     Aerosol drug formulations containing vegetable oils
     Adjei, Akwete L.; Gupta, Pramod K.; Lee, Dennis Y.
IN
PA
     Abbott Laboratories, USA
SO
     PCT Int. Appl., 23 pp.
     CODEN: PIXXD2
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                     A 19970603 US 1995-485222 19950607
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PRAI US 1995-485222
                     19950607
                     Full-text?
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L4
    125:67721 CA
ΑN
    Aerosol formulations containing polyglycolyzed glycerides
TТ
    Fu, Lu Mou-Ying; Adjei, Akwete L.; Gupta, Pramod K.
IN
    Abbott Laboratories, USA
PA
    PCT Int. Appl., 28 pp.
SO
    CODEN: PIXXD2
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PRAI US 1994-296778
                     19940826
    WO 1995-US10469 19950816
    ANSWER 16 OF 21 Full-text? CA COPYRIGHT 1999 ACS
L4
ΑN
    123:350253 CA
    Aerosol drug formulations containing vitamin E
TΙ
IN
    Fu, Lu Mou-ying; Gupta, Pramod K.; Adjei, Akwete L.
    Abbott Laboratories, USA
PA
SO
    PCT Int. Appl., 18 pp.
    CODEN: PIXXD2
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                                          JP 1995-524061
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PRAI US 1994-212472
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    WO 1995-US2764
    ANSWER 17 OF 21 Full-text?
                              CA COPYRIGHT 1999 ACS
L4
ΑN
    120:173337 CA
TΙ
    Characterization and administration of cyclosporine liposomes as a
    small-particle aerosol
    Gilbert, Brian E.; Wilson, Samuel Z.; Garcon, Nathalie M.; Wyde, Philip
ΑU
    R.; Knight, Vernon
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Dep. Microbiol. Immunol., Baylor Coll. Med., Houston, TX, 77030, USA
ÇS
     Transplantation (1993), 56(4), 974-7
SO
     CODEN: TRPLAU; ISSN: 0041-1337
     Journal
DT
     English
LΑ
                      Full-text?
                                CA COPYRIGHT 1999 ACS
     ANSWER 18 OF 21
L4
     120:153272 CA
ΑN
     Decreased oxidized glutathione with aerosolized cyclosporine delivery
ΤI
     Katz, Aviva; Coran, Arnold G.; Oldham, Keith T.; Guice, Karen S.
ΑU
     Dep. Surg., Univ. Michigan, Ann Arbor, MI, 48109-0245, USA
CS
     J. Surg. Res. (1993), 54(6), 597-602
SO
     CODEN: JSGRA2; ISSN: 0022-4804
DT
     Journal
     English
LΑ
                      Full-text?
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     ANSWER 19 OF 21
L4
     119:256383 CA
ΑN
     Cyclosporin A liposome aerosol: Particle size and calculated
TI
     respiratory deposition
     Waldrep, J. C.; Scherer, P. W.; Keyhani, K.; Knight, V.
ΑU
     Cent. Biotechnol., Baylor Coll. Med., Woodlands, TX, 77381, USA
CS
     Int. J. Pharm. (1993), 97(1-3), 205-12
SO
     CODEN: IJPHDE; ISSN: 0378-5173
DΤ
     Journal
     English
LΑ
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     ANSWER 20 OF 21
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L4
     115:287230 CA
ΑN
ΤI
     Small particle aerosol liposome and liposome-drug combinations
     for medical use
     Knight, Jack V.; Gilbert, Brian E.; Wilson, Samuel Z.; Six, Howard R.;
IN
     Wyde, Philip R.
     Research Development Foundation, USA
PA
     U.S., 18 pp. Cont.-in-part of U.S. Ser. No. 927,898, abandoned.
SO
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ΡI	US 5049388	A	19910917	US 1989-3	83383	19890721
	JP 11222423	A2	19990817	JP 1998-3	36266	19871106
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PRAI	US 1986-927898	19861106				
	US 1988-239512	19880901				
	JP 1987-280853	19871	.106			

Full-text? CA COPYRIGHT 1999 ACS L4 ANSWER 21 OF 21

105:108133 CA ΑN

Effects of cyclosporine on pulmonary clearance of Staphylococcus aureus TΙ and Pseudomonas aeruginosa

Nugent, Kenneth M.; Kopp, William C. ΑU

Coll. Med., Univ. Iowa, Iowa City, IA, USA CS

J. Infect. Dis. (1986), 154(2), 352-5 SO CODEN: JIDIAQ; ISSN: 0022-1899

Journal DT

English LΑ

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ANSWER 1 OF 21 Full-text?
                            CA COPYRIGHT 1999 ACS
L4
    131:189741 CA
ΑN
    Fat emulsions for inhalational administration
TΙ
    Sonoke, Satoru; Seki, Junzo
IN
PA
    Nippon Shinyaku Co., Ltd., Japan
    PCT Int. Appl., 36 pp.
so
    CODEN: PIXXD2
DΤ
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LΑ
    Japanese
FAN.CNT 1
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                   A1 19990910 WO 1999-JP1004 19990303
    WO 9944594
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            PT, SE
PRAI JP 1998-53159
                    19980305
=> d 14 2-20
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                           CA COPYRIGHT 1999 ACS
L4
    ANSWER 2 OF 21
ΑN
    131:161656 CA
    Liquid crystal forms of cyclosporin
TТ
    Bennett, David B.; Cabot, Kirsten M.; Foster, Linda C.;
    Lechuga-Ballesteros, David; Patton, John S.; Tan, Trixie K.
    Inhale Therapeutic Systems, Inc., USA
PΑ
SO
    PCT Int. Appl., 62 pp.
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LΑ
    English
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                   A1 19990826 WO 1999-US3052 19990211
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PRAI US 1998-PV75422 19980220
    ANSWER 3 OF 21 Full-text? CA COPYRIGHT 1999 ACS
L4
AN
    130:272007 CA
    Buccal spray or capsule compositions containing polar and non-polar
ΤI
    solvents for transmucosal administration of drugs
IN
    Dugger, Harry A., III
    Flemington Pharmaceutical Corporation, USA
PΑ
SO
    PCT Int. Appl., 38 pp.
    CODEN: PIXXD2
DT
    Patent
LA
    English
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    WO 9916417 A1 19990408 WO 1997-US17899 19971001
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            PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US,
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                                             AU 1997-48946
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                            19990423
     AU 9748946
                       A1
                      19971001
PRAI WO 1997-US17899
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     ANSWER 4 OF 21
L4
     129:297756 CA
ΑN
     Cyclosporine aerosol in lung transplantation
ΤI
     Burckart, Gilbert J.; Keenan, Robert J.; Iacono, Aldo T.; Griffith,
ΑU
     Bartley P.
     University of Pittsburgh Medical Center, Pittsburgh, PA, USA
CS
     Local Immunosuppr. Organ Transplants (1996), 131-139. Editor(s): Gruber,
SO
     Scott A. Publisher: Landes, Austin, Tex.
     CODEN: 660CAO
     Conference; General Review
DT
     English
LA
                      Full-text?
     ANSWER 5 OF 21
                                CA COPYRIGHT 1999 ACS
L4
     128:261794 CA
ΑN
     Pulmonary pharmacokinetics of cyclosporin A liposomes
ΤI
     Arppe, J.; Vidgren, M.; Waldrep, J. C.
ΑU
     Dep. Pharmaceutics, Univ. Kuopio, Kuopio, Finland
CS
     Int. J. Pharm. (1998), 161(2), 205-214
SO
     CODEN: IJPHDE; ISSN: 0378-5173
     Elsevier Science B.V.
PΒ
DT
     Journal
     English
LΑ
                      Full-text?
     ANSWER 6 OF 21
                                 CA
                                    COPYRIGHT 1999 ACS
T.4
ΑN
     128:212889 CA
     Aerosol cyclosporine prevents acute allograft rejection in
ΤI
     experimental lung transplantation
     Mitruka, Surindra N.; Pham, Si M.; Zeevi, Adriana; Li, Sen; Cai, Jane;
ΑIJ
     Burckart, Gilbert J.; Yousem, Samuel A.; Keenan, Robert J.; Griffith,
     Bartley P.
     Departments of Cardiothoracic Surgery, University of Pittsburgh School of
CS
     Medicine, Pittsburgh, PA, 15261, USA
     J. Thorac. Cardiovasc. Surg. (1998), 115(1), 28-37
SO
     CODEN: JTCSAQ; ISSN: 0022-5223
PΒ
     Mosby-Year Book, Inc.
\mathsf{DT}
     Journal
LА
     English
                      Full-text?
     ANSWER 7 OF 21
                                 CA COPYRIGHT 1999 ACS
L4
     128:196599 CA
ΑN
     Experimental pulmonary delivery of cyclosporin A by liposome
TI
     Waldrep, J. C.; Arppe, J.; Jansa, K. A.; Vidgren, M.
ΑU
     One Baylor Plaza, Department of Molecular Physiology and Biophysics,
CS
     Baylor College of Medicine, Houston, TX, USA
     Int. J. Pharm. (1998), 160(2), 239-250
SO
     CODEN: IJPHDE; ISSN: 0378-5173
PΒ
     Elsevier Science B.V.
DT
     Journal
LA
     English
                      "Full-text?
     ANSWER 8 OF 21
                                CA
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L4
     128:188167 CA
AN
ТT
     Cyclosporine
     Burckart, Gilbert J.; Keenan, Robert; Griffith, Bartley P.; Iacono, Aldo
ΑIJ
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University of Pittsburgh School of Pharmacy, Pittsburgh, PA, USA
CS
     Lung Biol. Health Dis. (1997), 107 (Inhalation Delivery of Therapeutic
SO
     Peptides and Proteins), 281-299
     CODEN: LBHDD7; ISSN: 0362-3181
     Marcel Dekker, Inc.
PΒ
     Journal; General Review
DT
LA
     English
                     Full-text?
                               CA
                                  COPYRIGHT 1999 ACS
     ANSWER 9 OF 21
L4
     128:132441 CA
ΑN
     Medicinal cyclosporin A aerosol solutions
TI
     Bell, Alexander
IN
     Rhone-Poulenc Rorer Ltd., UK; Bell, Alexander
PA
SO
     PCT Int. Appl., 21 pp.
     CODEN: PIXXD2
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DT
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LA
FAN.CNT 1
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                      A1
                          19980202
                                          AU 1997-34538
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         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI
                      19960708
PRAI GB 1996-14326
     US 1996-23048
                      19960802
                      19970707
     WO 1997-GB1851
                      Full-text?
     ANSWER 10 OF 21
                                CA COPYRIGHT 1999 ACS
L4
ΑN
     128:119664 CA
     High dose liposomal aerosol formulations
ΤI
     Waldrep, J. Clifford; Knight, Vernon; Black, Melanie B.
IN
     Research Development Foundation, USA
PΑ
     PCT Int. Appl., 44 pp.
SO
     CODEN: PIXXD2
DT
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LA
FAN.CNT 2
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                           19980108
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            MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ,
             TM, TT, UA, UG, UZ, VN
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             GN, ML, MR, NE, SN, TD, TG
                                                            19961016
     US 5958378
                      Α
                           19990928
                                           US 1996-731605
                            19980121
                                          AU 1997-36508
                                                            19970702
     AU 9736508
                      Α1
PRAI US 1996-675654
                      19960703
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ANSWER 11 OF 21 Full-text?
                                CA COPYRIGHT 1999 ACS
1.4
     127:314516 CA
ΑN
     Cyclosporin A liposome aerosol: lack of acute toxicity in rats
TΙ
     with a high incidence of underlying pneumonitis
     Gilbert, Brian E.; Black, Melanie B.; Waldrep, J. Clifford; Bennick,
ΑU
     Jerry; Montgomery, Charles; Knight, Vernon
    Dep. Microbiol. Immunol., Baylor Coll. Med., Houston, TX, USA
CS
     Inhalation Toxicol. (1997), 9(8), 717-730
SO
    CODEN: INHTE5; ISSN: 0895-8378
    Taylor & Francis
PB
     Journal
DT
    English
LA
                      Full-text?
                                CA COPYRIGHT 1999 ACS
    ANSWER 12 OF 21
L4
     127:229170 CA
ΑN
     Pulmonary delivery of intratracheally instilled and aerosolized
ΤI
     cyclosporine A to young and adult rats
     Taljanski, Witold; Pierzynowski, Stefan G.; Lundin, Pal D. P.; Westrom,
ΑU
     Bjorn R.; Eirefelt, Stefan; Podlesny, Jerzy; Dahlback, Magnus;
     Siwinska-Golebiowska, Henryka; Karlsson, Borje W.
    Department of Immunology, National Research Institute of Mother and Child,
CS
    Warsaw, 01-211, Pol.
     Drug Metab. Dispos. (1997), 25(8), 917-920
SO
     CODEN: DMDSAI; ISSN: 0090-9556
    Williams & Wilkins
PB
DT
     Journal
LΑ
    English
                      Full-text?
                                CA COPYRIGHT 1999 ACS
    ANSWER 13 OF 21
L4
    127:140432 CA
AN
    High dose cyclosporin A and budesonide-liposome aerosols
ΤI
    Waldrep, J. C.; Arppe, J.; Jansa, K. A.; Knight, V.
ΑU
     Dep. Molecular Physiology Biophysics, Baylor College Medicine, Houston,
CS
    TX, 77030, USA
     Int. J. Pharm. (1997), 152(1), 27-36
SO
     CODEN: IJPHDE; ISSN: 0378-5173
    Elsevier
PB
DT
     Journal
LA
    English
    ANSWER 14 OF 21 Full-text?
                               CA COPYRIGHT 1999 ACS
L4
    126:135595 CA
ΑN
    Aerosol drug formulations containing vegetable oils
ΤI
    Adjei, Akwete L.; Gupta, Pramod K.; Lee, Dennis Y.
IN
PA
    Abbott Laboratories, USA
SO
     PCT Int. Appl., 23 pp.
     CODEN: PIXXD2
DT
     Patent
    English
LA
FAN.CNT 1
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PΤ
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         W: CA, JP, MX
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                            19970603
                                           US 1995-485222
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    US 5635161
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PRAI US 1995-485222
                      19950607
                      Full-text?
L4
    ANSWER 15 OF 21
                                CA COPYRIGHT 1999 ACS
ΑN
     125:67721 CA
TΙ
    Aerosol formulations containing polyglycolyzed glycerides
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Fu, Lu Mou-Ying; Adjei, Akwete L.; Gupta, Pramod K.
ΙN
     Abbott Laboratories, USA
PA
     PCT Int. Appl., 28 pp.
SO
     CODEN: PIXXD2
DT
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     English
LA
FAN.CNT 1
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                      KIND DATE
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                                          WO 1995-US10469 19950816
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                            19970603
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                                                            19940826
     US 5635159
     CA 2195874
                      AΑ
                            19960307
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                                                            19950816
                                           AU 1995-33292
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     AU 9533292
                      A1
                            19960322
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     EP 777467
                      A1
                            19970611
        R: DE, FR, GB, IT
                                          JP 1995-508793
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     JP 10505060
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                            19980519
PRAI US 1994-296778
                      19940826
     WO 1995-US10469 19950816
                     Full-text?
     ANSWER 16 OF 21
                               CA COPYRIGHT 1999 ACS
L4
ΑN
     123:350253 CA
     Aerosol drug formulations containing vitamin E
TI
     Fu, Lu Mou-ying; Gupta, Pramod K.; Adjei, Akwete L.
IN
     Abbott Laboratories, USA
PA
     PCT Int. Appl., 18 pp.
SO
     CODEN: PIXXD2
DT
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LΑ
FAN.CNT 1
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                                                            DATE
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     JP 09510445
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                                          EP 1995-912746
     EP 804157
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                      A1
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE
PRAI US 1994-212472
                     19940314
     WO 1995-US2764
                      19950302
     ANSWER 17 OF 21 Full-text?
                               CA COPYRIGHT 1999 ACS
T.4
ΑN
     120:173337 CA
TI
     Characterization and administration of cyclosporine liposomes as a
     small-particle aerosol
     Gilbert, Brian E.; Wilson, Samuel Z.; Garcon, Nathalie M.; Wyde, Philip
ΑU
     R.; Knight, Vernon
     Dep. Microbiol. Immunol., Baylor Coll. Med., Houston, TX, 77030, USA
CS
     Transplantation (1993), 56(4), 974-7
SO
     CODEN: TRPLAU; ISSN: 0041-1337
DT
     Journal
LA
     English
     ANSWER 18 OF 21 Full-text?
                               CA COPYRIGHT 1999 ACS
L4
     120:153272 CA
ΑN
     Decreased oxidized glutathione with aerosolized cyclosporine delivery
TI
ΑU
     Katz, Aviva; Coran, Arnold G.; Oldham, Keith T.; Guice, Karen S.
     Dep. Surg., Univ. Michigan, Ann Arbor, MI, 48109-0245, USA
CS
     J. Surg. Res. (1993), 54(6), 597-602
so
     CODEN: JSGRA2; ISSN: 0022-4804
DT
     Journal
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10/6/99 9:18 AM

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LA English
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- L4 ANSWER 19 OF 21 Full-text? CA COPYRIGHT 1999 ACS
- AN 119:256383 CA
- TI Cyclosporin A liposome **aerosol**: Particle size and calculated respiratory deposition
- AU Waldrep, J. C.; Scherer, P. W.; Keyhani, K.; Knight, V.
- CS Cent. Biotechnol., Baylor Coll. Med., Woodlands, TX, 77381, USA
- SO Int. J. Pharm. (1993), 97(1-3), 205-12 CODEN: IJPHDE; ISSN: 0378-5173
- DT Journal
- LA English
- L4 ANSWER 20 OF 21 Full-text? CA COPYRIGHT 1999 ACS
- AN 115:287230 CA
- TI Small particle **aerosol** liposome and liposome-drug combinations for medical use
- IN Knight, Jack V.; Gilbert, Brian E.; Wilson, Samuel Z.; Six, Howard R.; Wyde, Philip R.
- PA Research Development Foundation, USA
- SO U.S., 18 pp. Cont.-in-part of U.S. Ser. No. 927,898, abandoned. CODEN: USXXAM
- DT Patent
- LA English
- FAN. CNT 2

E MIV.	CNI Z		ADDITERMINAL NO	DATE
	PATENT NO.	KIND DATE	APPLICATION NO.	DATE
ΡI	US 5049388	A 19910917	US 1989-383383	19890721
	JP 11222423	A2 19990817	JP 1998-336266	19871106
	JP 11222424	A2 19990817	JP 1998-336267	19871106
PRAI	US 1986-927898	19861106		
	US 1988-239512	19880901		
	JP 1987-280853	19871106		

## => d 14 6 13 14 17 20 all

- L4 ANSWER 6 OF 21 Full-text? CA COPYRIGHT 1999 ACS
- AN 128:212889 CA
- TI Aerosol cyclosporine prevents acute allograft rejection in experimental lung transplantation
- AU Mitruka, Surindra N.; Pham, Si M.; Zeevi, Adriana; Li, Sen; Cai, Jane; Burckart, Gilbert J.; Yousem, Samuel A.; Keenan, Robert J.; Griffith, Bartley P.
- CS Departments of Cardiothoracic Surgery, University of Pittsburgh School of Medicine, Pittsburgh, PA, 15261, USA
- SO J. Thorac. Cardiovasc. Surg. (1998), 115(1), 28-37 CODEN: JTCSAQ; ISSN: 0022-5223
- PB Mosby-Year Book, Inc.
- DT Journal
- LA English
- CC 1-7 (Pharmacology)
  - Section cross-reference(s): 63
- The incidence of acute rejection and the morbidity of systemic cyclosporine (INN: cyclosporin) after lung transplantation is significant. Exptl. evidence suggests that the allograft locally modulates the immune mechanisms of acute rejection. The purpose of this study was to det. whether aerosolized cyclosporine would prevent acute cellular rejection, achieve effective graft concns. with low systemic drug delivery, and locally affect prodn. of the inflammatory cytokines involved in acute rejection. Unilateral orthotopic left lung transplantation was performed in 64 rats (ACI to Lewis), which were divided into eight groups (each group, n = 8): group A, no treatment; groups B to D, aerosol

cyclosporine 1 to 3 mg/kg per day, resp.; groups E to H, systemic cyclosporine 2, 5, 10, and 15 mg/kg per day, resp. After the animals were killed on postoperative day 2, 4, or 6, the transplanted lung, native lung, spleen, and blood were collected. Histol. studies, high-pressure liq. chromatog. for trough cyclosporine concns., and reverse-transcriptase polymerase chain reaction for cytokine gene expression were performed. Untreated animals showed grade 4 rejection by postoperative day 6. Aerosol cyclosporine prevented acute rejection in a dose-dependent fashion, with group D animals (3 mg/kg per day) showing minimal grade 1 changes. Among animals receiving systemic cyclosporine, only group H (15 mg/kg per day) controlled (grade 1) rejection. However, aerosol cyclosporine, at an 80% lower dose, achieved significantly lower concns. of cyclosporine in the graft (12,349 vs. 28,714 ng/mg, p = 0.002004) and blood (725 vs. 3306 ng/mL, p = 0.000378). Group F (systemic 5 mg/kg per day) had higher cyclosporine concns. in the blood than group D (p =0.004572) and similar tissue concns. (p = 0.115180), yet had grade 2 rejection. Reverse-transcriptase polymerase chain reaction demonstrated equiv. suppression of inducible nitric oxide synthase but a 20- to 25-fold higher expression of interleukin-6, interleukin-10, and interferon-.gamma. in group D vs. group H recipient allografts. Local delivery of cyclosporine by aerosol inhalation dose-dependently prevented acute pulmonary allograft rejection. Effective graft levels and low systemic drug delivery required significantly lower doses than systemic therapy alone. The gene expression of proinflammatory cytokines involved in allograft rejection was suppressed by aerosol cyclosporine therapy. cyclosporine aerosol lung allotransplant rejection; inflammatory cytokine cyclosporine aerosol lung allotransplant Sprays (drug delivery systems) (aerosol cyclosporine prevents acute allograft rejection in exptl. lung transplantation) Cyclophilins Inflammatory cytokines

ST

ΙT

IT

Interferon .gamma.

Interleukin 10

Interleukin 6

RL: BPR (Biological process); BIOL (Biological study); PROC (Process) (aerosol cyclosporine prevents acute allograft rejection in exptl. lung transplantation by affecting prodn. of inflammatory cytokines)

ΙT Transplant rejection

> (allo-; aerosol cyclosporine prevents acute allograft rejection in exptl. lung transplantation)

ΙT Lung

> (allograft; aerosol cyclosporine prevents acute allograft rejection in exptl. lung transplantation)

IT Allograft

> (lung; aerosol cyclosporine prevents acute allograft rejection in exptl. lung transplantation)

IT **59865-13-3**, Cyclosporine

RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (aerosol cyclosporine prevents acute allograft rejection in exptl. lung transplantation)

ΙT 125978-95-2, Nitric oxide synthase

RL: BPR (Biological process); BIOL (Biological study); PROC (Process) (inducible; aerosol cyclosporine prevents acute allograft rejection in exptl. lung transplantation by affecting prodn. of inflammatory cytokines)

Full-text? COPYRIGHT 1999 ACS L4ANSWER 13 OF 21 CA

127:140432 CA ΑN

ΤI High dose cyclosporin A and budesonide-liposome aerosols

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Waldrep, J. C.; Arppe, J.; Jansa, K. A.; Knight, V.
ΑU
     Dep. Molecular Physiology Biophysics, Baylor College Medicine, Houston,
ÇS
     TX, 77030, USA
     Int. J. Pharm. (1997), 152(1), 27-36
SO
     CODEN: IJPHDE; ISSN: 0378-5173
     Elsevier
PB
     Journal
DT
     English
LΑ
     63-6 (Pharmaceuticals)
CC
     The development of liposomal formulations for pulmonary delivery with jet
AB
     nebulizers has vast potential for future aerosol therapies.
     Different variables det. the therapeutic efficacy of aerosols, including
     formulation. The purpose of this study was to develop concd., high dose
     liposomal formulations initially using immunosuppressive (cyclosporin A,
     CsA) and anti-inflammatory drugs (budesonide, Bud) for targeted pulmonary
     delivery with maximal aerosol output and particle size ranges
     within the optimal range of 1-3 .mu.m mass median aerodynamic diam.
     (MMAD). Results indicate that with increasing drug-liposome concns. there
     is reduced nebulized mass output but an inversely proportional increase in
     aerosol output of liposomes up to crit. starting concn. ranges of
     21.3 mg CsA:160 mg 1,2-dilauroyl-sn-glycero-3-phosphocholine (DLPC)/mL and
     Bud 12.5 mg:187.5 mg DLPC/mL. Above these concn. ranges (which were
     unique for each formulation tested), there was a redn. in the liposome
     aerosol output. With the increased liposome concns., there was a
     linear increase in the apparent viscosity and redn. in apparent surface
     tension, however, there were no demonstrable correlations between these
     parameters and drug output rates. Aerosol particle size anal.
     demonstrated that the MMAD increased minimally with higher liposome
     concns. The size range of these high dose drug-liposome aerosols is
     optimal for penetration into the lung periphery.
     cyclosporin budesonide liposome aerosol
ST
     Liposomes (drug delivery systems)
IT
        (aerosols; high-dose cyclosporin A and budesonide-liposome aerosols)
     Drug targeting
TΤ
     Interfacial tension
     Lung
     Particle size distribution
     Viscosity
        (high-dose cyclosporin A and budesonide-liposome aerosols)
IT
     Lecithins
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (high-dose cyclosporin A and budesonide-liposome aerosols)
                                                51333-22-3, Budesonide
     18194-25-7, Dilauroylphosphatidylcholine
ΙT
     59865-13-3, Cyclosporin A
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (high-dose cyclosporin A and budesonide-liposome aerosols)
                      Full-text?
     ANSWER 14 OF 21
                               CA COPYRIGHT 1999 ACS
L4
     126:135595 CA
ΑN
     Aerosol drug formulations containing vegetable oils
ΤI
     Adjei, Akwete L.; Gupta, Pramod K.; Lee, Dennis Y.
ΙN
     Abbott Laboratories, USA
PΑ
SO
     PCT Int. Appl., 23 pp.
     CODEN: PIXXD2
DT
     Patent
LΑ
     English
     ICM A61K009-72
IC
     63-5 (Pharmaceuticals)
```

FAN. CNT I							
PATENT NO.		KIND	DATE	APPLICATION NO.	DATE		
ΡI	WO 9640089	A2	19961219	WO 1996-US9654	19960607		
	WO 9640089	A3	19970123				

Section cross-reference(s): 1, 2, 15

```
W: CA, JP, MX
         RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
                           19970603
                                           US 1995-485222
                                                            19950607
    US 5635161
                      Δ
PRAI US 1995-485222
                      19950607
    Pharmaceutical compns. for aerosol delivery comprising (a) a
    medicament, (b) a non-chlorofluorocarbon propellant, and (c) a vegetable
    oil or a pharmaceutically acceptable deriv. thereof, as well as a method
    for prepg. such compns. in which unwanted aggregation of the medicament is
    prevented without the use of surfactants, protective colloids or
    cosolvents.
    drug aerosol vegetable oil formulation
ST
IT
    Peptides, biological studies
    RL: PEP (Physical, engineering or chemical process); THU (Therapeutic
     use); BIOL (Biological study); PROC (Process); USES (Uses)
        (Delhirelix; aerosol drug formulations contg. vegetable oils)
    Allergy inhibitors
TΤ
    Bronchodilators
    Expectorants
    Immunosuppressants
     Propellants
    Sprays (drug delivery systems)
     .beta.-Adrenoceptor agonists
     .beta.-Adrenoceptor antagonists
        (aerosol drug formulations contg. vegetable oils)
    Steroids, biological studies
IT
    RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (aerosol drug formulations contg. vegetable oils)
    Growth factors (animal)
IT
    Halo alkanes
    Interferons
    Leukotrienes
    Neuropeptides
    Olive oil
    Peptides, biological studies
    Prostaglandins
    Safflower oil
    Soybean oil
    RL: PEP (Physical, engineering or chemical process); THU (Therapeutic
    use); BIOL (Biological study); PROC (Process); USES (Uses)
        (aerosol drug formulations contg. vegetable oils)
IT
    Vegetable oils
    RL: PEP (Physical, engineering or chemical process); THU (Therapeutic
     use); BIOL (Biological study); PROC (Process); USES (Uses)
        (unsatd.; aerosol drug formulations contg. vegetable oils)
                   phrine 59-42-7, Phenylephrine 586-06-1, Metaproterenol 811-9
     51-43-4, Epinephrine
                                                      431-89-0
ΙT
                                              811-97-2, HFC-134a 1490-04-6,
     Isoetharine
               7683-59-2, Isoproterenol
                                          9003-98-9, DNAse
                                                              9011 - 97 - 6
                       9034-40-6D, Lhrh, analogs
                                                    11096-26-7, Erythropoietin
    Cholecystokinin
                                                     22839-47-0, Aspartame
    \frac{16110-51-3}{23031-25-6}, Cromolyn \frac{18559-94-9}{53123-88-9}, Rapamycin
                                                                      57982-77-1
                                                        53714-56-0
                                                            63775-95-1,
                                 60205-81-4, Ipratropium
     59865-13-3, Cyclosporin A
    Cyclosporin b
                     65807-02-5 74436-00-3, Cyclosporin g
                           104987-11-3, Tacrolimus
    76932-56-4, Nafarelin
                                                        104987-12-4, Ascomycin
     120287-85-6, Cetrorelix
                              135215-95-1
    RL: PEP (Physical, engineering or chemical process); THU (Therapeutic
    use); BIOL (Biological study); PROC (Process); USES (Uses)
        (aerosol drug formulations contg. vegetable oils)
     9015-94-5, Renin, biological studies
                                             80619-02-9, 5-Lipoxygenase
ΤТ
    RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (inhibitors; aerosol drug formulations contg. vegetable oils)
    ANSWER 17 OF 21 Full-text? CA COPYRIGHT 1999 ACS
L4
    120:173337 CA
AN
```

10/6/99 9:18 AM

- Characterization and administration of cyclosporine liposomes as a small-particle aerosol
- AU Gilbert, Brian E.; Wilson, Samuel Z.; Garcon, Nathalie M.; Wyde, Philip R.; Knight, Vernon
- CS Dep. Microbiol. Immunol., Baylor Coll. Med., Houston, TX, 77030, USA
- SO Transplantation (1993), 56(4), 974-7 CODEN: TRPLAU; ISSN: 0041-1337
- DT Journal
- LA English
- CC 63-6 (Pharmaceuticals)
  - Section cross-reference(s): 1
- Systemically administered CsA has not consistently suppressed the AΒ pulmonary immunoreactivity that leads to rejection in lung transplant Pulmonary T cells from patients given CsA systemically still retain their immunoreactivity, which can be suppressed with added CsA. Direct application of CsA by aerosol to the respiratory epithelium should achieve high lung concns. with min. systemic effects. In the present study, CsA was most efficiently incorporated into liposomes composed of egg yolk phosphatidylcholine at a molar ratio of CsA to egg yolk phosphatidylcholine of 1:20. [These CsA liposomes retained their biol. activity and were as effective as free CsA in the suppression of anti-CD3-stimulated [3H]thymidine incorporation by mouse spleen cells. The generation of a small particle aerosol of CsA liposomes had no effect on this biol. activity. CsA liposome aerosol particles have a mass median aerodynamic diam. of 2 .mu.m, which allows for distribution of drug throughout the respiratory tract. Quantitation of CsA in the lungs and blood of mice exposed to CsA liposome aerosols for 4 days showed that as little as 15 min daily (0.11 mg/kg/day) was sufficient to achieve an estd. concn. of CsA in respiratory secretions of 6 .mu.g/mL without detectable blood levels. Thus, CsA liposomes can be produced and aerosolized that achieve pulmonary concns. with sufficient immunosuppressive activity to be effective in the treatment of lung
- ST cyclosporine liposome small particle aerosol
- IT Respiratory tract

(aerosol liposome small particles contg. cyclosporine administration to)

IT Immunosuppressants

(cyclosporine, **aerosol** liposomes, characterization and administration of, as small-particles)

IT Particle size

(of aerosol liposomes contg. cyclosporine)

IT Pharmaceutical dosage forms

(aerosols, liposomes, cyclosporine, characterization and administration of small-particle)

IT Phosphatidylcholines, biological studies

RL: BIOL (Biological study)

(egg yolk, aerosol liposomes contg. cyclosporine and, characterization and administration of, as small-particles)

IT **59865-13-3**, Cyclosporine

RL: BIOL (Biological study)

(aerosol liposomes, characterization and administration of, as small-particles)

- L4 ANSWER 20 OF 21 Full-text? CA COPYRIGHT 1999 ACS
- AN 115:287230 CA
- TI Small particle **aerosol** liposome and liposome-drug combinations for medical use
- IN Knight, Jack V.; Gilbert, Brian E.; Wilson, Samuel Z.; Six, Howard R.; Wyde, Philip R.
- PA Research Development Foundation, USA
- SO U.S., 18 pp. Cont.-in-part of U.S. Ser. No. 927,898, abandoned. CODEN: USXXAM

```
English
LΑ
     ICM A61K037-22
ΙC
NCL
    424450000
CC
     63-6 (Pharmaceuticals)
FAN.CNT 2
                                           APPLICATION NO.
                                                             DATE
                      KIND DATE
     PATENT NO.
                     ----
     US 5049388
                            19910917
                                           US 1989-383383
                                                             19890721
                      Α
PΙ
                                           JP 1998-336266
                            19990817
                                                             19871106
     JP 11222423
                      A2
                            19990817
                                           JP 1998-336267
                                                             19871106
     JP 11222424
                      A2
PRAI US 1986-927898
                      19861106
     US 1988-239512
                      19880901
     JP 1987-280853
                      19871106
     Disclosed are aq. aerosol droplets contg. liposome or interacted
AB
     liposome-drug combination particles in a continuous phase of air or
     oxygen-enriched air advantageous for the treatment of a wide variety of
     diseases. The drug is interacted with the liposome membrane so that on
     its rupture the drug is not lost from the liposome. The majority of the
     aerosol droplets contg. the liposome particles alone or with drugs
     has a diam. .ltoreq.5 .mu.m and has an aerodynamic mass median diam. 1-3
     .mu.m, and the liposome and interacted-liposome drug particles are
     substantially uniform in size and .ltoreq.1 .mu.m in diam., thereby
     providing deposition of the droplets throughout a respiratory tract of a
     patient when inhaled. Thus, enviroxime-contg. liposomes were prepd. and
     tested for the animal tolerance to show safety for human use.
     liposome aerosol droplet respiratory tract; enviroxime liposome
ST
     aerosol
     Respiratory tract
IT
        (aerosol droplets contg. liposome particles for delivery to,
        oxygen-enriched air for)
     Analgesics
IT
     Antibiotics
     Antidiabetics and Hypoglycemics
     Antihistaminics
     Antihypertensives
     Antihypotensives
     Cardiotonics
     Hypnotics and Sedatives
     Immunomodulators
     Neoplasm inhibitors
     Parasiticides
     Tranquilizers and Neuroleptics
        (aerosol droplets contg. liposome particles of)
IT
     Estrogens
     Hormones
     Steroids, biological studies
     RL: BIOL (Biological study)
        (aerosol droplets contg. liposome particles of)
IT
     Receptors
     RL: BIOL (Biological study)
        (blockers, aerosol droplets contq. liposome particles of)
IT
     Glycosides
     RL: BIOL (Biological study)
        (cardiac, aerosol droplets contg. liposome particles of)
     Atomization
IT
        (of pharmaceutical liposomes, for aerosol delivery)
IT
     Pharmaceutical dosage forms
        (aerosols, liposomes, oxygen-enriched air in, for inhalation)
IT
        (antiasthmatics, aerosol droplets contg. liposome particles
        of)
     Fungicides and Fungistats
ΙT
```

Patent

DT

Virucides and Virustats (medical, aerosol droplets contg. liposome particles of) 50-53-3, Chlorpromazine, biological studies 53-03-2, Prednisone . IT  $\overline{59-05-2}$ , Methotrexate 71-63-6, Digitoxin  $9\overline{4-20-2}$  652-67-5, Isosorbide 768-94-5, Amantadine 1397-89-3, Amphotericin B 59277-89-3, Acyclovir **59865-13-3**, Cyclosporine A <u>72301-79-2</u>, Enviroxime RL: BIOL (Biological study) (aerosol droplets contg. liposome particles of) => d his (FILE 'HOME' ENTERED AT 09:03:04 ON 06 OCT 1999) FILE 'REGISTRY' ENTERED AT 09:04:06 ON 06 OCT 1999 6 S CYCLOSPORINE L1FILE 'CA' ENTERED AT 09:04:56 ON 06 OCT 1999 9116 S L1 L2E AEROSOL 37003 S E3 L3 21 S L2 AND L3 L40 S TACOLIMUS L5654 S TACROLIMUS L6 1 S L4 AND L6 L7

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